

Intermediate Quality Report

EU-SILC 2005

National Statistics Office (NSO) Malta

1. Sample Design

Type of sampling

The sampling design adopted for Malta's EU-SILC 2005 data collection involved simple random sampling of dwellings from the Water Services database which served as the sampling frame for this survey. Consequently, these dwellings have served as the best possible proxy to the household population that were targeted for this survey.

All the persons living in the selected dwellings were then interviewed for this survey in order to obtain information at personal level.

Sample size

As from 2004, all participating countries were obliged, by regulation, to meet specific minimum effective sample sizes of households and eligible persons (persons aged 16+). The established minimum sample size for Malta's cross-sectional component was 3,000 households corresponding to at least 7,000 persons aged 16 and over.

The gross sample size (as selected by simple random sampling) for Malta was 5,104 households. Of these, 395 households were ineligible households that could not be located, households that did not actually exist, non-residential addresses, permanently vacant dwellings and institutional households (e.g. elderly homes). Consequently, a total of 4,709 households were approached for the interview.

Renovation of sample: Rotational groups

Malta has adapted a 4-year rotational design as recommended by Eurostat. Such a design is a balanced combination between the two 'extreme' options of selecting independent samples from year to year and using a long-term panel extending over 4 years.

In practice, rotational groups will be used for the first time in next year's survey. However, even though not directly effecting fieldwork in the first year of survey (which only contained a cross-sectional component), groundwork on establishing the rotational design had to be carried out in the first year.

The simple rotational design used in Malta involved selecting four, equally sized simple random samples out of the total sample of dwellings. The four sub-samples were labeled as panels 1 to 4. Thus, the second year of the survey would involve re-interviewing respondents from panels 2, 3 and 4 and replacing panel 1 by a new sample of households. This corresponds to the 'linear' rotation pattern recommended by Eurostat which will enable both a cross-sectional and longitudinal analysis.

The selection of these panels in Malta has been accomplished under a different methodology than as recommended by Eurostat. This is due to the fact that the four panels have been selected after the completion of data collection, than rather at the survey design stage. Thus, upon completion of fieldwork, the total sample was split into two sub-samples made up of responding and non-responding households. Each of the two sub-samples was split into four equal simple random samples.

Panel 1 was formed by combining the first sub-sample from the responding households with the first sub-sample from the non-responding households. The same procedure was repeated for the creation of panels 2, 3 and 4. This resulted in four equally sized panels with an equal response rate in each.

It has been decided to adapt this methodology in order to guarantee an adequate sample of households within every panel, even after sample attrition over time.

Weightings

The main steps involved in the calculation of weights for Malta were:

- The estimation of the total household population in Malta;
- The calculation of the design weights
- Non-response adjustments
- Calibrations

The estimation of household population counts

The following steps summarize the main steps involved in the calculation of the household population in Malta.

1. NSO estimates annually the total population in Malta and Gozo by sex and district (NUTS 3). This distribution was used as basis for the calculation of the weights.
2. NSO also holds the total number of persons living in Institutional households by sex and district for 2005.
3. By subtracting the population counts derived in (1) and (2), we obtained the distribution of persons living in households by sex and district.

4. The (un-weighted) average household size by district was calculated from the Labour Force Survey data for 2005.
5. The estimated number of households by district were obtained by dividing the counts from step 3 by the corresponding household sizes that were derived from step 4 by district.
6. Unweighted counts of households by size and district were calculated from the Labour Force Survey data for 2005. Row percentages derived from this distribution were used in order to estimate the number of households by size and district from (5).

Design weights

The household design weights were calculated as the inverse of the selection probability of households (where the selection probability of households = household population / number of eligible households).

Non-response adjustments

Non-response adjustments were carried out at sample level by district by comparing the distribution of responding households to that of households in the sampling frame.

Calibrations

Non-response adjustments were applied to produce a tabulation of households by size and district. This distribution was compared with that of the total population to produce further calibrations.

Cross-sectional weights

The final household cross-sectional weight has been calculated by multiplying the design weight by the non-response adjustment and by the calibration factor.

Substitutions

No substitutions were made.

2. Common cross-sectional European Union indicators based on the cross-sectional component of EU-SILC

Primary Laeken indicators of social cohesion

At-risk-of poverty rate after transfers

- ‘At-risk-of poverty rates’ (after social transfers) broken down by age and gender

%		Age					
		Total (0+)	0-15	16-24	25-49	50-64	65+
Sex	Total	14.8	21.9	11.2	12.8	13.0	15.4
	Male	14.4	-	10.8	12.0	11.6	15.4
	Female	15.3	-	11.8	13.7	14.2	15.4

- ‘At-risk-of poverty rates’ (after social transfers) broken down by most frequent activity status and gender

%		Most frequent activity status							
		Total	'At work'			'Not at work'			
			Total 'at work'	Wage/salary employee	Self-employed	Total 'not at work'	Unemployed	Retired	Other inactive
Sex	Total	13.1	5.6	4.6	11.8	19.2	46.2	16.5	18.1
	Male	12.2	6.8	5.6	12.6	22.0	54.2	17.5	17.4
	Female	13.9	2.9	2.7	6.3	18.0	24.9	12.0	18.2

- ‘At-risk-of poverty rates’ (after social transfers) broken down by household type

Household Type			%
All households with no dependent children	Total		11.1
	1 person households	Total	22.2
		M	16.2
		F	25.1
		age < 65 yrs	25.6
	age 65+	19.7	
2 adults no dependent children	both age < 65 yrs		13.9
	at least one age 65+		17.2
Other households with no dependent children			4.8
All households with dependent children	Total		17.7
	Single parent	at least 1 dependent child	49.8
	2 adults	1 dependent child	13.4
		2 dependent children	15.9
		3+ dependent children	35.4
Other households with dependent children			11.3

- ‘At-risk-of poverty rates’ (after social transfers) broken down by tenure status and gender

Tenure status	Sex	%
Total	Total	14.8
	M	14.4
	F	15.3
Owner or rent-free	Total	13.6
	M	13.5
	F	13.7
Tenant	Total	20.6
	M	18.7
	F	22.3

- ‘At-risk-of poverty threshold’ (illustrative values)

		At-risk-of-poverty threshold (illustrative values)
1 person household	NAT	1996.4
2 adults 2 dependant children	NAT	4192.4

Inequality of income distribution

- Ratio of total income received by the 20% of the country’s population with the highest income (top quintile) to that received by the 20% of the country’s population with the lowest income (lowest quintile)

S80/S20 income quintile ratio	4.14
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Relative median at-risk-of-poverty gap by gender and selected age group

- Difference between the median income of persons below the at-risk-of-poverty threshold and the at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of-poverty threshold

%		Age			
		Total (0+)	0-15	16-64	65+
Sex	Total	18.1	20.7	18.1	14.2
	Male	18.9	-	18.3	15.8
	Female	17.7	-	18.0	13.2

Secondary Laeken Indicators of social cohesion

2.2.1 Dispersion around the risk-of-poverty threshold

- The share of persons with an income below 40%, 50% and 70% national median income

		Dispersion around the at-risk-of-poverty threshold		
		40% of median	50% of median	70% of median
Sex	Total	3.2	7.9	24.2
	Male	3.2	7.8	23.3
	Female	3.3	8.0	25.1

2.2.2 At-risk-of-poverty rate anchored at a moment in time

This indicator shall be provided from 2007 as requested by Eurostat.

2.2.3 At-risk-of-poverty rate before transfers

- At-risk-of-poverty rate where income is the ‘equivalised disposable income before social transfers except old-age and survivors’ benefits’

		Age			
		Total (0+)	0-15	16-64	65+
Sex	Total	21.0	30.5	18.3	20.6
	Male	20.3	-	17.1	19.8
	Female	21.8	-	19.5	21.2

- At-risk-of-poverty rate where income is the ‘equivalised disposable income before social transfers including old-age and survivors’ benefits’

		Age			
		Total (0+)	0-15	16-64	65+
Sex	Total	35.8	33.9	27.2	78.8
	Male	33.6	-	24.7	78.7
	Female	38.0	-	29.6	79.0

2.2.4 Gini Coefficient

- The relationship of cumulative shares of the population arranged according to the level of income, to the cumulative share of the total income received by them)

Gini coefficient	27.18
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Other Indicators

Equivalised disposable income

The median equivalised disposable income was Lm 3327.33 (national currency).

The gender pay gap

The gender pay gap was not calculated from EU-SILC for Malta.

3. Accuracy

Sampling errors

- ‘At-risk-of poverty rates’ (after social transfers) broken down by age and gender

Age	Sex	Value	Absolute sampling error	Relative sampling error %	Sample size (persons)
Total (0+)	Total	14.81	0.68	4.58	10282
	Male	14.35	0.95	6.62	5102
	Female	15.26	0.97	6.34	5180
0-15	Total	21.86	1.77	8.11	2036
16-24	Total	11.24	1.67	14.82	1346
	Male	10.76	2.26	20.99	704
	Female	11.75	2.46	20.92	642
25-49	Total	12.84	1.13	8.77	3302
	Male	11.97	1.56	13.00	1630
	Female	13.70	1.63	11.88	1672
50-64	Total	12.96	1.40	10.83	2141
	Male	11.65	1.92	16.46	1048
	Female	14.23	2.04	14.37	1093
65+	Total	15.39	1.83	11.88	1457
	Male	15.36	2.75	17.90	644
	Female	15.42	2.45	15.89	813
16+	Total	13.06	0.72	5.50	8246
	Male	12.22	1.00	8.17	4026
	Female	13.87	1.03	7.42	4220
16-64	Total	12.56	0.78	6.19	6789
	Male	11.62	1.07	9.17	3382
	Female	13.50	1.13	8.39	3407
0-64	Total	14.71	0.73	4.96	8825
	Male	14.21	1.01	7.12	4458

	Female	15.23	1.05	6.91	4367
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- ‘At-risk-of poverty rates’ (after social transfers) broken down by most frequent activity status, age and gender

Age	Most frequent activity status	Sex	Value	Absolute sampling error	Relative sampling error %	Sample size (persons)
16+	Total	Total	13.09	0.72	5.50	8215
		Male	12.25	1.00	8.18	4008
		Female	13.89	1.03	7.43	4207
	Of which: 'At work'	Total	5.60	0.73	13.10	3679
		Male	6.80	0.96	14.17	2554
		Female	2.86	0.96	33.60	1125
	...Of which: Wage/salary employee	Total	4.62	0.72	15.60	3174
		Male	5.60	0.97	17.28	2112
		Female	2.67	0.96	35.86	1062
	...Of which: Self-employed	Total	11.81	2.78	23.52	505
		Male	12.58	3.05	24.25	442
		Female	6.28	5.91	94.08	63
	Of which: 'Not at work'	Total	19.23	1.13	5.89	4536
		Male	21.97	2.10	9.56	1454
		Female	17.95	1.34	7.45	3082
	...Of which: Unemployed	Total	46.21	6.16	13.33	245
		Male	54.23	7.24	13.36	177
		Female	24.94	10.15	40.69	68
...Of which: Retired	Total	16.53	2.16	13.05	1109	
	Male	17.45	2.43	13.94	911	
	Female	12.01	4.47	37.18	198	
...Of which: Other inactive	Total	18.09	1.32	7.30	3182	
	Male	17.45	3.84	21.99	366	
	Female	18.18	1.41	7.74	2816	
16-64	Total	Total	12.59	0.78	6.20	6758
		Male	11.65	1.07	9.18	3364
		Female	13.52	1.14	8.40	3394
	Of which: 'At work'	Total	5.64	0.74	13.10	3653
		Male	6.86	0.97	14.17	2534
		Female	2.88	0.97	33.59	1119
	...Of which: Wage/salary employee	Total	4.64	0.72	15.60	3160
		Male	5.63	0.97	17.27	2101
		Female	2.68	0.96	35.86	1059
	...Of which: Self-employed	Total	12.12	2.84	23.46	493
		Male	12.86	3.11	24.20	433
		Female	6.64	6.22	93.62	60
	Of which: 'Not at work'	Total	20.87	1.41	6.76	3105
		Male	26.60	2.97	11.15	830

		Female	18.81	1.58	8.43	2275
	...Of which: Unemployed	Total	46.41	6.18	13.31	244
		Male	54.23	7.24	13.36	177
		Female	25.34	10.28	40.56	67
	...Of which: Retired	Total	19.99	4.04	20.23	366
		Male	21.72	4.66	21.45	293
		Female	12.77	7.55	59.15	73
	...Of which: Other inactive	Total	18.51	1.50	8.13	2495
		Male	16.74	3.81	22.74	360
		Female	18.80	1.64	8.70	2135
65+	Total	Total	15.55	1.85	11.89	1457
		Male	15.36	2.75	17.90	644
		Female	15.42	2.45	15.89	813
	Of which: 'At work'	Total	15.41	13.88	90.02	26
		Male	0.00	0.00	N/A	20
		Female	N/A	N/A	N/A	6
	...Of which: Wage/salary employee	Total	N/A	N/A	N/A	14
		Male	N/A	N/A	N/A	11
		Female	N/A	N/A	N/A	3
	...Of which: Self-employed	Total	N/A	N/A	N/A	12
		Male	N/A	N/A	N/A	9
		Female	N/A	N/A	N/A	3
	Of which: 'Not at work'	Total	15.69	1.86	11.86	1431
		Male	15.87	2.83	17.83	624
		Female	15.54	2.47	15.87	807
	...Of which: Unemployed	Total	N/A	N/A	N/A	1
		Male	N/A	N/A	N/A	0
		Female	N/A	N/A	N/A	1
	...Of which: Retired	Total	14.84	2.52	17.00	743
		Male	15.45	2.81	18.20	618
		Female	11.56	5.53	47.82	125
	...Of which: Other inactive	Total	16.61	2.75	16.54	687
		Male	N/A	N/A	N/A	6
		Female	16.24	2.73	16.84	681

- 'At-risk-of poverty rates' (after social transfers) broken down by household type

Household Type		Value	Absolute sampling error	Relative sampling error %	Sample size (persons)	
All households with no	Total	11.14	0.91	8.14	4506	
	1 person hh	Total	22.17	3.56	16.05	510
		M	16.18	5.48	33.86	169

dependant children		F	25.07	4.54	18.11	341
		age < 65 yrs	25.65	5.80	22.62	212
		age 65+	19.71	4.46	22.62	298
	2 adults no dep. childr.	both age < 65 yrs at least one age 65+	13.86 17.20	2.30 2.34	16.60 13.62	844 972
	Other hh no dep. childr.		4.81	0.89	18.42	2180
All households with dependant children	Total		17.68	0.97	5.49	5776
	Single parent	at least 1 dep. child	49.84	8.21	16.47	139
	2 adults	1 dep. child	13.42	2.06	15.36	1023
		2 dep. children	15.89	1.62	10.21	1900
		3+ dep. children	35.39	3.08	8.72	898
Other hh with dep. childr.		11.26	1.43	12.75	1816	

- ‘At-risk-of poverty rates’ (after social transfers) broken down by tenure status, age and gender

Age	Tenure status	Sex	Value	Absolute sampling error	Relative sampling error %	Sample size (persons)
0+	Total	Total	14.81	0.68	4.58	10282
		Male	14.35	0.95	6.62	5102
		Female	15.26	0.97	6.34	5180
	Owner or rent-free	Total	13.57	0.72	5.28	8544
		Male	13.46	1.01	7.51	4269
		Female	13.68	1.02	7.43	4275
	Tenant	Total	20.57	1.88	9.12	1738
		Male	18.66	2.61	14.01	833
		Female	22.33	2.68	12.00	905
0-15	Total	Total	21.86	1.77	8.11	2036
	Owner or rent-free	Total	18.47	1.76	9.53	1820
	Tenant	Total	49.30	6.58	13.36	216
16+	Total	Total	13.06	0.72	5.50	8246
		Male	12.22	1.00	8.17	4026
		Female	13.87	1.03	7.42	4220
	Owner or rent-free	Total	12.23	0.77	6.32	6724
		Male	11.54	1.08	9.32	3301
		Female	12.90	1.11	8.59	3423
	Tenant	Total	16.52	1.84	11.15	1522
		Male	15.12	2.58	17.03	725
		Female	17.80	2.62	14.73	797
16-64	Total	Total	12.56	0.78	6.19	6789
		Male	11.62	1.07	9.17	3382

		Female	13.50	1.13	8.39	3407
	Owner or rent-free	Total	11.46	0.82	7.15	5652
		Male	10.73	1.13	10.52	2814
		Female	12.18	1.19	9.75	2838
	Tenant	Total	17.76	2.19	12.35	1137
		Male	15.77	2.96	18.77	568
		Female	19.75	3.23	16.36	569
65+	Total	Total	15.39	1.83	11.88	1457
		Male	15.36	2.75	17.90	644
		Female	15.42	2.45	15.89	813
	Owner or rent-free	Total	16.36	2.19	13.36	1072
		Male	16.25	3.23	19.90	487
		Female	16.45	2.96	18.02	585
	Tenant	Total	12.86	3.30	25.68	385
		Male	12.76	5.15	40.40	157
		Female	12.94	4.30	33.26	228

- ‘At-risk-of poverty rates’ (after social transfers) broken down by household type and work intensity

Household type	Work intensity	Value	Absolute sampling error	Relative sampling error %	Sample size (persons)
All households with no dependant children	WI = 0	32.8	3.323934	10.1403	746
	0 < WI < 1	4.2	0.864557	20.52328	2021
	WI = 1	0.6	0.533839	87.11947	800
All households with dependent children	WI = 0	75.8	4.151312	5.479684	399
	0 < WI < 0.5	28.5	4.16756	14.61568	439
	0.5 <= WI < 1	15.0	1.136842	7.602171	3683
	WI = 1	3.2	0.968414	29.86755	1252

Non-sampling errors

Sampling frame and coverage errors

The Water services database was used as the sampling frame for this survey. The decision to use the Water Services database followed from a comparative study of the

feasibilities linked to using two possible databases - the Electoral Register and the Water Services database.

The Electoral Register is a database consisting of all individuals who are entitled to vote. Consequently, a filtering of individuals according to address would result in the creation of the required data frame for households. However, there is a significant limitation linked to using the Electoral Register since it is sometimes the case that certain addresses recorded in the register do not necessarily reflect the corresponding individuals' actual places of residence. This would obviously create difficulties in data collection. Moreover this database does not contain households made up of foreign residents who are not entitled to vote in Malta.

The alternative to the Electoral Register was the Water Services database which is a collection of all dwellings having a water meter. Linked to each dwelling in the database are a number of variables on the persons living in the dwellings. A list of occupied dwellings can be extracted from this database according to consumption records i.e. if no consumption is recorded for a particular dwelling, it can be assumed that no individuals live there and consequently the dwelling can be omitted from the sampling frame. Thus, it was decided that the Water Services database is the most comprehensive database of dwellings that could serve as a good proxy for a sampling frame of all households in Malta.

Nevertheless, as already mentioned earlier, the sample selected from the Water Services database resulted in 395 ineligible addresses that correspond to 7.7% of the sample.

Measurement and processing errors

Measurement errors

The main sources of measurement errors that have been identified are the following:

- **Questionnaire**

A few errors in wording and misprints were identified in the questionnaire despite intensive proof-reading. When these errors were identified, the interviewers were immediately informed about them. Nonetheless we do not exclude the possibility that this could have caused some misinterpretation. We are however confident that the consequences are very minimal. Note of these errors was taken so as to avoid them in subsequent years.

- **Interviewers**

A lot of effort was put into ensuring that the briefing sessions that were organized for the interviewers would be as clear and informative as possible. Furthermore, interviewers were provided with notes summarizing the main issues of this survey and were encouraged to refer to the Office whenever the need for further clarification arose. In parallel the office made it a point to

keep in contact with the interviewers to resolve any difficulties that may crop up. Nevertheless, we had a few instances of non-co-operative behaviors from interviewers. Auditing of households was carried out to identify and take action on such problems with immediate effect.

- **Respondents**

Respondents' cooperation was reasonably good and resulted in a response rate of 73.5%. Nevertheless, a number of difficulties were encountered here. The burden on respondents is an ever-increasing problem due to Malta's small size and the considerable number of surveys that require the public's co-operation. In this context, there were occasions where permission to conduct telephone interviews was given in an attempt to minimize the burden. Furthermore, the quality of response must be understood in the context of issues such as unwillingness of respondents to answer correctly (or even answer) certain questions on income and living conditions due to sensitivity of subject. There was also an element of proxy effect when individuals answered for other household members who were not at home at the time of interview.

Processing errors

- **Data collection and data entry**

The vast majority of fieldwork was carried out through CAPI (computer assisted personal interviewing) by means of laptops. The data entry program used during data collection contained automatic validations that ensured that certain responses were within reasonable ranges and made logical sense when compared to previous related responses. In some cases, interviewers were given the option to suppress a validation so as to cater for exceptional cases. The program also automated the routing from a question to another thus minimizing accidental omission of questions. Consequently this system reduced considerably the processing errors related to data entry whilst speeding up the whole process.

The only problems experienced in this context were related to the fact that not all interviewers were very familiar with handling a laptop. This was catered for by organising separate training sessions to illustrate how the laptops and program work.

Furthermore, fictitious 'test' households were created in each laptop and interviewers were encouraged to experiment inputting data so as to be familiar with the process before interviewing actual households.

However the CAPI system did not cover the whole fieldwork. Questionnaires were printed and PAPI (paper and pencil interviewing) was used in the following instances:

- during initial stages when CAPI program was not yet finalized and laptops were not yet available

- when the number of interviewers at a given time outnumbered the number of laptops
- in case of technical problems in laptops interrupting surveys

The PAPI alternative was used in these cases so as to avoid creating delays in the fieldwork.

Non-response errors

Achieved sample size

As was explained earlier, a sample of 5104 households was extracted by simple random sampling from the Water Services database (excluding institutional households and private households for which no water consumption was recorded during 2005). The resulting distribution of eligible and ineligible households is as follows:

	DB120	DB130	No.	%
Eligible households			4709	100.0
Address contacted and				
... household questionnaire completed	11	11	3459	73.5
... household refused to cooperate	11	21	520	11.0
... household temporarily away	11	22	168	3.6
... household unable to respond (due to illness, incapacity...)	11	23	96	2.0
... household questionnaire not completed due to other reasons	11	24	274	5.8
Address unable to access	22	na	192	4.1
Ineligible households			395	100.0
Address cannot be located	21	na	192	48.6
Address does not exist or is a non-residential address	23	na	52	13.2
Address contacted and residence was permanently vacant	11	24	151	38.2

Table 1: Distribution of eligible and ineligible households

where DB120 is the record of contact at address; and
DB130 is the household questionnaire result

Consequently the number of households for which the interview was accepted for database is 3,459 corresponding to a household response rate of 73.5%. This corresponds to 10,282 persons, of whom 8,246 are aged 16 and over.

It must be pointed out here that the household response rate, as quoted above, does not conform to the household response rate as defined by Eurostat. This is due to coding differences which are noted in Table 1 above.

Unit non-response

The following rates are computed according to Eurostat definitions.

- **Household non-response rate**

The address contact rate (R_a) is given by:

$$R_a = \frac{\sum[DB120 = 11]}{\sum[DB120 = all] - \sum[DB120 = 23]} = \frac{4668}{5104 - 52} = 0.924$$

The proportion (R_h) of complete household interviews and accepted for the database is:

$$R_h = \frac{\sum[DB135 = 1]}{\sum[DB130 = all]} = \frac{3459}{4668} = 0.741$$

The household non-response rate (NR_h) is given by:

$$NR_h = (1 - (R_a * R_h)) * 100 = (1 - (0.924 * 0.741)) * 100 = 31.5\%$$

Note: If the household non-response rates were calculated using the distribution described in Table 1, the resulting proportions and rate would be the following:

$$R_a = \frac{\text{No. of addresses successfully contacted}}{\text{No. of valid addresses selected}} = \frac{4709}{5104 - 395} = 1$$

$$R_h = \frac{\text{No. of household interviews completed and accepted for database}}{\text{No. of eligible households at contacted addresses}} = \frac{3459}{4709} = 0.735$$

$$NR_h = (1 - (R_a * R_h)) * 100 = (1 - (1 * 0.735)) * 100 = 26.5$$

- **Individual non-response rate**

The proportion (R_p) of complete interviews within the households accepted for the database:

$$R_p = \frac{\sum[RB250 = 11 + 12 + 13]}{\sum[RB245 = 1 + 2 + 3]} = \frac{8246}{8246} = 1$$

The individual non-response rate (NR_p) is given by:

$$NR_p = (1 - (R_p)) * 100 = (1 - (1)) * 100 = 0\%$$

The reason behind a zero individual non-response rate is that whenever a household was interviewed and one (or more) of the household members did not respond, proxy answers for these individuals were requested from responding members.

- **Overall individual non-response rate**

The overall individual non-response rate (NR_p) is given by:

$$NR_p = (1 - (R_a * R_h * R_p)) * 100 = (1 - (0.924 * 0.741 * 1)) * 100 = 31.5\%$$

Item non-response

The following tables summarize item non-response for income variables:

		Households having a positive amount		Households having a negative amount		Of which (before imputation)...					
						Full Information		Partial Information		Missing values	
		No.	%*	No.	%*	No.	%**	No.	%**	No.	%**
Total household income											
Total household gross income	HY010	3457	99.9	0	0.0	3031	87.7	397	11.5	29	0.8
Total disposable household income	HY020	3455	99.9	2	0.05	2775	80.3	654	18.9	28	0.8
Total disposable household income before social transfers except old age and survivors' benefits	HY022	3390	98.0	4	0.1	2743	80.8	618	18.2	33	1.0
Total disposable household income before social transfers including old age and survivors' benefits	HY023	3039	87.9	18	0.5	2452	80.2	531	17.4	74	2.4
Gross income components at household level											
Income from rental of property or land	HY040G	169	4.9	0	0.0	169	100.0	0	0.0	0	0.0
Interest, dividends, profit from capital investments in unincorporated	HY090G	1991	57.6	0	0.0	1886	94.7	30	1.5	75	3.8

business											
Family/Children related allowances	HY050G	779	22.5	0	0.0	764	98.1	0	0.0	15	1.9
Social exclusion not elsewhere classified	HY060G	5	0.1	0	0.0	5	100.0	0	0.0	0	0.0
Housing allowances	HY070G	521	15.1	0	0.0	494	94.8	0	0.0	27	5.2
Regular inter-household cash transfer received	HY080G	51	1.5	0	0.0	51	100.0	0	0.0	0	0.0
Interest repayments on mortgage	HY100G	464	13.4	0	0.0	454	97.8	0	0.0	10	2.2
Income received by people aged under 16	HY110G	12	0.3	0	0.0	10	83.3	0	0.0	2	16.7
Regular inter-household cash transfer paid	HY130G	91	2.6	0	0.0	84	92.3	0	0.0	7	7.7

Note:

* percentages are out of the total number of households for which the interview was accepted for the database i.e. 3459

** percentages are out of the total number of households having received an amount (positive or negative) for that household income variable

		Persons 16+ having a positive amount		Persons 16+ having a negative amount		Of which (before imputation)...					
						Full Information		Partial Information		Missing values	
		No.	%*	No.	%*	No.	%**	No.	%**	No.	%**
Gross income components at personal level											
Gross employee cash or near cash income	PY010G	3358	40.7	0	0.0	3126	93.1	14	0.4	218	6.5
Gross non-cash employee income	PY020G	124	1.5	0	0.0	102	82.3	7	5.6	15	12.1
Contributions to individual private pension plans	PY035G	350	4.2	0	0.0	340	97.1	0	0.0	10	2.9
Cash benefits or losses from self-employment	PY050G	592	7.2	1	0.01	515	86.8	0	0.0	78	13.2
Pension from individual	PY080G	43	0.5	0	0.0	43	100.0	0	0.0	0	0.0

private plans											
Unemployment benefits	PY090G	130	1.6	0	0.0	125	96.2	0	0.0	5	3.8
Old-age benefits	PY100G	1639	19.9	0	0.0	1570	95.8	4	0.2	65	4.0
Survivors' benefits	PY110G	135	1.6	0	0.0	127	94.1	0	0.0	8	5.9
Sickness benefits	PY120G	350	4.2	0	0.0	348	99.4	0	0.0	2	0.6
Disability benefits	PY130G	113	1.4	0	0.0	112	99.1	0	0.0	1	0.9
Education-related allowances	PY140G	315	3.8	0	0.0	303	96.2	0	0.0	12	3.8

Note:

- * percentages are out of the total number of respondents (aged 16+) for which the interview was accepted for the database i.e. 8246
- ** percentages are out of the total number of respondents (aged 16+) having received an amount (positive or negative) for that household income variable

Imputations

Item-non response in essential variables was tackled through estimations by means of auxiliary variables and the use of register information where available.

Given the nature of the questionnaire's content, a certain amount of item non-response was expected in questions related to income. Consequently one of the preventive measures taken whilst compiling the questionnaire was to include some questions giving respondents a possibility to select one of a number of income brackets so as to give an indication of the amount. This alternative was only offered as an option when respondents showed reluctance to answer a particular income-related question. Once a particular bracket was selected, the amount was then estimated to be equal to the mean value for that income bracket. The questions for which ranges were offered were those on tax adjustments, income from self-employment, income from interests and dividends and profit from property rental.

Missing values on children's allowance were estimated through a Children's Allowance Online Calculator available on the Ministry for the Family and Social Solidarity website. The required inputs for such calculations are the number of children (specifying whether they are under 16, aged from 16 to 21 and are full-time students not receiving a stipend or aged from 16 to 21 and are unemployed) and total household income.

Missing income for employees who only gave information on the amount of tax paid was estimated using the tax band register.

Insurance registers were used to estimate the non-cash employee income component related to the provision of a company car, van or other vehicle that was available for private use. The value can be estimated if the vehicle's make, model and year of registration are known. In fact these variables were collected through the SILC questionnaire.

4. Comparability

The following sections highlight any minor departures in definitions of national concepts from standard EU-SILC concepts. However, as much as possible, and for the sake of comparability, we have ensured that most national concepts coincide with EU-SILC concepts.

Basic concepts, definitions

Reference population

No departure from the common definition i.e. the reference population is composed of all private households and their current members residing in Malta at the time of data collection. Persons living in institutions are excluded from the target population.

Private household definition

No departure from the common definition i.e. a private household is defined as a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living.

Household membership

A person is a household member if s/he is usually resident in that particular dwelling and shares in household expenses. Persons who are temporarily absent for reasons of holiday, travel, work, health, education or similar are included as long as the persons do not intend to stay away for more than 6 months.

Income reference period

The income reference period was calendar year 2004.

Tax on income and social insurance contributions reference period

The tax on income and social insurance contributions reference period was the same as the income reference period i.e. calendar year 2004.

Taxes on wealth reference period

The variable on regular taxes on wealth is not applicable for Malta.

Lag between income reference period and current variables

The data collection was carried out between 5th July and 31st October 2005. Thus the lag between income reference period and current variables spans between 6 and 10 months, depending on the date of interview for each household. We did not succeed in limiting the interval to 8 months due to delays in having the CAPI program functioning properly and the unavailability of laptops in the initial stages of data collection.

Total duration of data collection of the sample

As mentioned above, data collection was carried out between 5th July and 31st October 2005. Consequently the total duration of data collection of the sample was slightly under 4 months, which is within the limits established by Eurostat.

Basic information on activities status during the income reference period

This information was collected through the inclusion of a question in the questionnaire which requested the respondents' activity status for every month of the income reference period i.e. calendar year 2004.

Components of income

Information on income was collected through a number of sub-questions for each income component as follows:

1. Number of payments during the 12 months
2. Gross income at each payment
3. Net income at each payment
4. Tax paid per payment received
5. National Insurance paid per payment received

Preceding these sub-divisions was a note specifying that the income reference period was 2004, and a description of the specific income component being treated in each question. A response was expected only for one of sub-divisions 2 (gross income at each payment) and 3 (net income at each payment). Preference for the collection of information on gross income (rather than net) was expressed during briefing sessions for interviewers and was also implied through the choice of ordering of the sub-questions mentioned above.

For the following income components, the same definitions as standard EU-SILC were used:

- Total household gross income
- Total disposable household income
- Total disposable household income before social transfers except old-age and survivors' benefits
- Total disposable household income before social transfers including old-age and survivors' benefits
- Income from rental of property or land
- Family/children related allowances
- Social exclusion not elsewhere classified
- Housing allowances
- Regular inter-household cash transfer received
- Interest, dividends, profit from capital investments in unincorporated business
- Interest paid on mortgage
- Income received by people aged under 16
- Regular inter-household cash transfer paid
- Tax on income and social insurance contributions
- Employee cash or near cash income
- Non-cash employee income
- Cash benefits or losses from self-employment (including royalties)
- Unemployment benefits
- Old-age benefits
- Survivors' benefits
- Sickness benefits
- Disability benefits
- Education-related allowances

The following income components have not been collected for reasons specified below:

Imputed rent

Since data on imputed rent will only be mandatory as from 2007, Malta has not collected information on this variable as yet.

Regular taxes on wealth

The variable on regular taxes on wealth is not applicable for Malta.

Employers' social insurance contributions

Since data on employers' social insurance contributions will only be recorded from 2007 (depending on a feasibility study), Malta has not collected information on this variable as yet.

Repayments/receipts for tax adjustments

Since Malta has collected a combination of gross and net values for income components, the tax adjustments are included under the variable on tax on income and social contributions.

Value of goods for own consumption

Since data on goods for own consumption will only be mandatory as from 2007, Malta has not collected information on this variable as yet.

Mode of data collection

The following is a distribution of the sample cases (persons aged 16 and over) according to the data collection methods:

Type of interview	Number	%
face to face interview - PAPI	659	8.0
face to face interview - CAPI	5122	62.1
proxy interview	2415	29.3
Missing	50	0.6
Total	8246	100.0

All information was completed only from interviews i.e. no registers were used.

Interview duration

The mean interview duration per household amounted to 40 minutes. This was calculated as instructed i.e. the sum of duration of all household interviews plus the sum of duration of all personal interviews, divided by the number of household questionnaires completed and accepted for the database.